

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

Meikrantz et al.

Serial No.: Not Yet Assigned

Filed: _____

For: CESIUM AND STRONTIUM
EXTRACTION USING A MIXED
EXTRACTANT SOLVENT INCLUDING
CROWN ETHER AND CALIXARENE
EXTRACTANTS

Confirmation No.: Unknown

Examiner: Unknown

Group Art Unit: Unknown

Attorney Docket No.: B-424

NOTICE OF EXPRESS MAILING

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INFORMATION DISCLOSURE STATEMENT

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

In compliance with the duty to disclose information material to patentability pursuant to 37 C.F.R. § 1.56, it is respectfully requested that this Information Disclosure Statement be entered and the documents listed on attached Form PTO-1449 or PTO/SB/08 be considered by the Examiner and made of record. Copies of the listed documents are enclosed pursuant to 37 C.F.R. § 1.98(a).

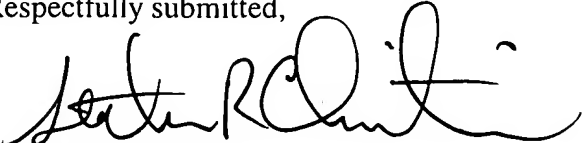
In accordance with 37 C.F.R. § 1.97(g) and (h), filing of this Information Disclosure Statement is not to be construed as a representation that a search has been made or an admission

that the information cited herein is, or is considered to be, material to patentability as defined in 37 C.F.R. § 1.56(b). Further, no representation is made by Applicants herein that no other possible material information as defined in 37 C.F.R. § 1.56(b) exists.

Applicants offer to supply any explanation or discussion of the documents that the Examiner feels is necessary or desirable and which is requested.

This Information Disclosure Statement is filed within three (3) months of the filing date of the above-identified application, and no certification pursuant to 37 C.F.R. § 1.97(c) or a fee pursuant to 37 C.F.R. § 1.17(p) is required.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Stephen R. Christian", written in a cursive style.

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Date: 23 MAR 2004

Enclosures: Form PTO-1449 or PTO/SB/08
Cited Documents

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Substitute for form 1449A/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT <i>(use as many sheets as necessary)</i>				Complete if Known	
				Application Number	Not Yet Assigned
				Filing Date	
				First Named Inventor	Meikrantz et al.
				Group Art Unit	Unknown
				Examiner Name	Unknown
				Attorney Docket Number	B-424
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U.S. PATENT DOCUMENTS					
Examiner Initials *	Cite No. ¹	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number - Kind Code ² (if known)			
		US-4,749,518	06/07/1988	Davis, Jr. et al.	
		US- 5,344,623	09/06/1994	Horwitz et al.	
		US- 5,346,618	09/13/1994	Horwitz et al.	
		US- 5,393,892	02/28/1995	Kraskowiak et al.	
		US- 5,607,591	03/04/1997	Dozol et al.	
		US- 5,666,641	09/09/1997	Abney et al.	
		US- 5,666,642	09/09/1997	Hawthorne et al.	
		US- 5,698,169	12/16/1997	Hawthorne et al.	
		US- 5,888,398	03/30/1999	Dietz et al.	
		US- 5,926,687	07/20/1999	Dozol et al.	
		US- 6,040,462	03/21/2000	Oh et al.	
		US- 6,174,503 B1	01/16/2001	Moyer et al.	
		US- 6,258,333 B1	07/10/2001	Romanovskiy et al.	
		US- 6,270,737 B1	08/07/2001	Zaitsev et al.	
		US- 2001/0033814 A1	10/25/2001	Romanovskiy et al.	
		US- 6,468,445 B2	10/22/2002	Romanovskiy et al.	
		US- 6,511,603 B1	01/28/2003	Dietz et al.	
		US- 6,566,561 B1	05/20/2003	Bonnesen et al.	
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*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

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Group Art Unit	Unknown
Examiner Name	Unknown
Attorney Docket Number	B 424

OTHER PRIOR ART -- NON PATENT LITERATURE DOCUMENTS

Examiner Initials *	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
		LEONARD et al., "Development of a Solvent Extraction Process for Cesium Removal From SRS Tank Waste," Sep. Sci. and Technol., 36(5-6):743-766 (2001).	
		LEONARD et al., "Experimental Verification of Caustic-Side Solvent Extraction for Removal of Cesium from Tank Waste," Solvent Extr. and Ion Exch. 21(4) :505-526 (2003).	
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		WHITE et al., "Stability Study of Cs Extraction Solvent," Sep. Sci. and Technol., 38(12-13):2667-2683 (2003).	
		WOOD et al., "Effect of the Interference of Alkali and Alkaline Earth Metal Ions on the Extraction of ⁹⁰ Sr From Acidic Nuclear Waste Solutions by 18-crown-6 Derivatives," Solvent Ext. and Ion Exch., 13(5), 829-844 (1995).	
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Sheet

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OTHER PRIOR ART -- NON PATENT LITERATURE DOCUMENTS

Examiner Initials *	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
		BONNESEN et al., "Alkaline-Side Extraction of Cesium from Savannah River Tank Waste Using a Calixarene-Crown Ether Extractant," ORNL/TM-13704, Oak Ridge National Laboratory: Oak Ridge, TN, pp. ii-102 (Dec 1998).	
		BONNESEN et al., "Development of Process Chemistry for the Removal of Cesium from Acidic Nuclear Waste by Calix[4]arene-crown-6 Ethers," ACS Sym. Ser. 757 (Calixarenes for Separations), Am. Chem. Soc., pp. 26-44 (2000).	
		CHIARIZIA et al., "Composition of the Organic Phase Species in the Synergistic Extraction of Sr ²⁺ by Mixtures of Di(2-Ethylhexyl) Alkylendiphosphonic Acids and Dicyclohexano-18-crown-6," Solvent Extr. and Ion Exch., 21(2):171-197 (2003).	
		DIETZ et al., "Extraction of Strontium from Acidic Nitrate Media Using a Modified PUREX Solvent," Solvent Extr. and Ion Exch., 13(1), 1-17 (1995).	
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		DUCHÉMIN et al., "Solvatochromic Solvent Polarity Measurements of Alcohol Solvent Modifiers and Correlation with Cesium Extraction Strength," Solvent Extr. and Ion Exch., 19(6):1037-1058 (2001).	
		GUPTA, et al., "Effect of Diluents on the Extraction of Sr ²⁺ from HNO ₃ Solutions with Dicyclohexano-18-crown-6," Solvent Extr. and Ion Exch., 21(1), 53-71 (2003).	
		HERBST et al., "Development and Testing of a Cobalt Dicarbolide Based Solvent Extraction Process for the Separation of Cesium and Strontium from Acidic Tank Waste," Sep. Sci. and Technol., 37(8), 1807-1831 (2002).	
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